

HANGER DEVICE AND HOOK MEMBER FOR A WALL-SUPPORTED MEMBER

BACKGROUND OF THE INVENTION

The present invention relates to a device for use in hanging wall-supported members, including framed pictures, mirrors, paintings, and the like. More particularly, the present invention relates to a multipurpose device with a level means for hanging a wall-supported member, the device including an upwardly and outwardly extending hook member.

Many devices are known to determine the levelness of a wall-supported member, and to mount or hang the wall-supported member to a wall. These devices each perform their intended function adequately, but may be limited in the function they perform, or in their ease of use. The purpose of the present invention is to provide a multi-function hanger device and hook member which is easy to use.

SUMMARY OF THE INVENTION

The hanger device includes a level indicating means and hook members disposed at two ends. The hook members include an upwardly and forwardly extending hanger member and an opening through which a fastener may be driven. The hanger device may be directly affixed to a wall surface, or used as a template for marking the relative positions separate hook members should be placed. Separate hook members may be removably affixed to the hanger device for this purpose. The hanger portion of the hook member may be used to capture a wire on a wall-supported member, or may directly capture a frame.

BRIEF DESCRIPTION OF THE DRAWING FIGURES

FIG. 1 is a perspective view of the hanger device and hook members of the present invention;

FIG. 2 is a front view of a separate hook member; and

FIG. 3 is a side view of a separate hook member.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

As shown in FIG. 1, the frame level hanger device 10 includes a horizontal arm 12 with hook members 14 affixed to each end. On the horizontal arm 12 is a level indicating means 16.

The level means may be any which is conventionally known such as a bubble in liquid (not shown) or a pendulum 18. The preferred embodiment features a pendulum 18 suspended from a center of the horizontal arm 12. A lower arm 20 extends downward and inward from the ends of the horizontal arm 12 and has markings 22 for the pendulum to indicate the levelness of the horizontal arm 12. Preferably, there are markings 22 to indicate horizontal levelness and for angles such as 30°, 45°, 60° and 90°.

At least one hook member 14 is affixed at each end of the horizontal arm 12. Each hook member 14 includes an upper opening 24 and preferably also a lower opening 26. From the top of the hook member 14 an upwardly and outwardly (from a wall) extending hanger portion 28 is provided. Additional hook members 14 may be removably affixed to each end, the use of which will be explained further.

To check the level of an already hanging wall-supported member, the horizontal arm 12 of the device 10 is aligned with a horizontal portion of the wall-supported member. The wall-supported member is then adjusted until the level indicating means of the device indicates levelness.

The device 10 is provided with hook members 14 at each end of the horizontal arm 12 to provide horizontally spaced apart holding of a wall-supported member. For particularly large wall-supported members for which a wire is used to hang from, the spacing between the hook members 14 provides greater resistance against pivoting of the wall-supported member than a single hook. Thus, the wall-supported member is less likely to pivot out of horizontal alignment. However, if only a single hook member 14 is needed, or a greater spacing between the hook members 14 is desired, the removably affixed hook members 14 may be separated from the device 10 and used.

Another feature of the device 10 is that the upwardly and outwardly extending hanger portion 28 of the hook member 14 may directly engage and hold a frame of the wall-supported member. A wire is thus not needed.

The device 10 may be directly affixed to a wall. The device is held up to the wall and a fastener 30, such as a nail or screw, is inserted through the upper opening 24 of a hook member 14 at each end of the horizontal arm 12 and driven into the wall, such that the device level means 16 indicates levelness. The wall-supported member is then

mounted on the affixed device by a frame or a wire. If additional holding power is needed another fastener may be driven through each of the lower openings 26 and into the wall.

The device 10 may also be used as a template for marking positions at which separated hook members 14 should be fastened to the wall. A mark on the wall may be made through the openings 24 or 26 with the device 10 in a level position. The device 10 furthermore may be used to mark an angled line, thus the angle markings 22.

With further reference to FIGS. 2 and 3, which show more detailed views of a separated hook member 14, the openings 24 and 26 provide a close fitting collar around a fastener driven therethrough. The close fitting collar allows for a user to insert the fastener which is held in place by the collar. Thus, a user need not hold both the hook member and fastener as the fastener is driven on installation. The openings also resist the downward torsional force on the fastener, when a load is placed on the hook member 14. The fastener is also directed by the openings 24 and 26 at an angle nearly perpendicular into the plane of the wall. The added support of the openings 24 and 26 on the fastener, and the nearly perpendicular alignment of the fastener in relation to the wall, increases the holding strength of the fastener, and reduces the damage to the wall caused by the loading on the fastener.

The openings 24 and 26 are preferably provided at a slight angle from perpendicular to the wall such that the fastener is driven slightly downwardly into the wall. This slight angle helps to hold the loaded fastener into the wall. Preferably the angle is provided at approximately 5 degrees from perpendicular, to a vertically extending wall.

When a hook member 14 is used separately, the lower opening 26 provides a user a place to hold the hook member 14 when a fastener is being driven into the upper opening 24. Furthermore, the use of a fastener in each of the openings 24 and 26 prevents the hook member 14 from pivoting around a single fastener.

Another important feature of the hook member 14 is that the hanger portion 28 is located above the rest of the hook member 14. The upper location of the hanger portion 28 makes it easier for a user to catch a wire or frame of the wall-supported

member on the hanger portion 28, without the wire or frame being deflected by another part of the hook member 14.

Furthermore, when a wire is used to hang the wall-supported member, the upwardly and forwardly extending hanger portion 28 directs the wire rearward over a shoulder 29 and against the wall and closely above the fastener driven through the upper openings. This positioning of the wire in relation to the fastener also decreases the torsional loading on the fastener, and increases the ability of the fastener to hold the load on the wire.

Whereas this invention has been described with respect to a preferred embodiment, it should be realized that various changes may be made thereto within the scope of the invention and only limited by the following claims.